DOCUMENT RESUME

ED 285 852 SP 029 272

AUTHOR Cooper, Lenore; Duck, Greg
TITLE Future Requirements for Secondary Teachers: The Views of Queensland Principals.
INSTITUTION Queensland Board of Teacher Education, Toowong (Australia).
REPORT NO ISBN-0-7242-1367-8
PUB DATE Sep 84
NOTE 58p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Administrator Attitudes; *Educational Needs; Foreign Countries; *Mathematics Teachers; *Principals; *Science Teachers; Secondary Education; Secondary School Teachers; Teacher Education; Teacher Effectiveness; Teacher Shortage; *Teacher Supply and Demand
IDENTIFIERS *Australia (Queensland)

ABSTRACT

A survey was developed to elicit information from secondary school principals in Queensland, Australia, regarding emerging needs for teacher education, teacher supply and quality in mathematics and science, and overall teacher supply and demand. The questionnaire also elicited information on personal characteristics of respondees, school information, perceived adequacy of teachers, new subject areas principals would like to see introduced in the future, priorities for additional staff, desirability of various possible future developments in secondary education, and desired characteristics of secondary school teachers in the future. Results of analysis of 231 responses are presented in this report. General findings indicated that principals stressed the importance of teachers' personal qualities, placed less emphasis on academic qualifications, and are currently involved in expanding their schools' curricula beyond the purely academic. (CB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED285852

FUTURE REQUIREMENTS FOR SECONDARY TEACHERS:

THE VIEWS OF QUEENSLAND PRINCIPALS

SP 029 272

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

N. H. Fry

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP

FUTURE REQUIREMENTS FOR SECONDARY TEACHERS: THE VIEWS OF QUEENSLAND PRINCIPALS

Board of Teacher Education, Queensland
P.O. Box 389, Toowong, Q. 4066.

September 1984

The material included in this report is not subject to copyright and no restrictions apply to the use or reproduction of any part of it, provided that the source is acknowledged.

National Library of Australia card number and ISBN

ISBN 0 7242 1367 8

ACKNOWLEDGEMENTS

This study was planned by a sub-committee of the Teacher Education Review Committee of the Board of Teacher Education. The members of the sub-committee were:

Mr J. Cooney, Principal, Wavell State High School

Mr N. Dempster, Regional Curriculum Officer, Department of Education

Mr G. Duck, Research Officer, Board of Teacher Education

Mr N. Fry, Executive Officer, Board of Teacher Education

Mrs J. Hempel, Deputy Principal, All Hallows School

Dr P. Meade, Principal Lecturer, Brisbane College of Advanced Education.

The Board would like to acknowledge the assistance of principals who provided information for the study by completing questionnaires.

This report was prepared by Lenore Cooper and Greg Duck and typed by Jackie Sorensen.

CONTENTS

	Page
INTRODUCTION	1
Background	1
Methodology	1
Survey Respondents	2
Presentation of the Results	2
BACKGROUND CHARACTERISTICS	3
Age and Sex of Principals	3
Major Teaching Areas of Principals	3
Years of Experience as a Principal	4
Locations and Enrolments of Schools	4
ADEQUACY OF CURRENT STAFFING IN SUBJECT AREAS	6
FUTURE STAFFING REQUIREMENTS	10
New Subject Areas	10
Priorities for Additional Staff	12
FUTURE DEVELOPMENTS IN SECONDARY EDUCATION	17
DESIRED CHARACTERISTICS OF SECONDARY TEACHERS IN THE FUTURE	23
SUMMARY AND CONCLUSIONS	26
REFERENCES	28
APPENDIX 1: QUESTIONNAIRE	29
APPENDIX 2: ADDITIONAL TABLES	45

LIST OF TABLES

		Page
Table 1:	Response rates to survey	2
Table 2:	Age distribution of principal sample	3
Table 3:	Major teaching areas of principals in the sample	4
Table 4:	Principals' years of experience	4
Table 5:	Location of schools	5
Table 6:	Enrolment of schools	5
Table 7:	Perceived quality of staff in major years 8-10 Board subjects	7
Table 8:	Perceived quality of staff in major years 11-12 Board subjects	8
Table 9:	New subject areas and anticipated student enrolments	11
Table 10:	Priorities for additional staff	13
Table 11:	Factors derived from "Future Developments in Secondary Education" items	18
Table 12:	Principals' responses to desired characteristic items	23

LIST OF FIGURES

Figure 1:	Priorities for additional staff by school type	15
Figure 2:	Principals' opinions on Community-School Interaction issues	19
Figure 3:	Principals' opinions on Non-Academic Emphasis issues	20
Figure 4:	Principals' opinions on Organisational Structure issues	21
Figure 5:	Principals' opinions on Academic Rigour issues	22

INTRODUCTION

Background

A major function of the Teacher Education Review Committee of the Board of Teacher Education is to keep under review the overall program of teacher education courses in Queensland and to make reports on existing and proposed course offerings to the Board. Using information from a variety of sources, the Committee seeks to identify and assess emerging needs in teacher education. Accordingly, the Committee has resolved to undertake a review of future requirements for secondary teachers to assist in the identification of desirable changes to pre-service secondary teacher education course offerings.

At the same time, the Board of Teacher Education Working Party on The Preparation of Teachers in Mathematics and Science has commenced investigations into the issue of teacher supply and quality in the mathematics and science curriculum areas. It is seeking data on expected demands for mathematics and science teachers and the adequacy of current teaching staff.

A third area of interest to the Board of Teacher Education which has been emerging as an important issue recently is shortages of qualified teachers in particular subject areas. In some cases, shortages have been experienced Australia-wide. A major contributing factor to this situation is likely to be the recent increases in student retention, and the consequent expansion of school enrolments. In Queensland schools, for example, the 1983 retention rate from Year 8 to Year 12 was over 10 per cent higher than the retention rate in 1979, while the rate from Year 8 to Year 11 was almost 14 per cent higher (Department of Education, Queensland, 1983).

It was decided that a survey should be instigated to provide information relevant to the three areas of concern outlined above (i.e. future requirements, mathematics and science staffing, and teacher supply and demand). It was further decided that the survey should address itself to principals of schools with secondary students, as they constitute a unique source of information concerning staffing. Principals are intimately involved with the processes and problems of adequately staffing their schools and are the people most keenly aware of the influences that staffing shortages or inadequacies can exert on both current school organisation and future developments.

Methodology

A sub-committee of the Board's Teacher Education Review Committee was formed to develop a survey instrument. As well as drawing on its own members' expertise, the sub-committee examined recent relevant publications to determine suitable items for inclusion in the instrument (e.g. *Schooling for 15 and 16 Year Olds*, Schools Commission, 1980; *The Induction of Beginning Primary Teachers*, Board of Teacher Education, 1981; *Secondary Schooling and the World of Work*, Board of Teacher Education, 1982; *Rationale and Guidelines for Teacher Education Courses in Brisbane College of Advanced Education*, 1983).

The instrument was internally reviewed by the Teacher Education Review Committee, and the Working Party on Mathematics and Science. It was also trialled with the principal of one metropolitan secondary school. A number of modifications was made in the light of these reviews and trialling.

The survey instrument, in its final format, sought information from principals on the following major areas:

- personal information
- school information, including geographical location and enrolment
- the perceived adequacy of teachers taking classes in various Board of Secondary School Studies subjects and school subjects

- new subject areas principals would like to see introduced in the future
- priorities for additional staff
- desirability of various possible future developments in secondary education
- desired characteristics of secondary teachers in the future.

A copy of the survey instrument is contained in Appendix 1.

Survey Respondents

The principals of all Queensland government and non-government schools with secondary level students were forwarded questionnaires in November 1983. It was thought preferable to forward surveys at this late stage of the school year rather than wait until the following year, to avoid the situation of a principal new to a school having to provide details on the school staffing situation.

A total of 325 principals were forwarded questionnaires. After follow-up letters, 231 questionnaires were returned, representing an overall response rate of 71 per cent. The level of response, however, varied considerably between government and non-government schools. Table 1 provides more detailed information on the response rates.

Table 1: Response rates to survey

TYPE OF SCHOOL	Number of Questionnaires Sent	Number of Questionnaires Returned	Response Rate %
Government			
Secondary Department*	65	44	68
Secondary School	144	87	60
Non-Government			
Catholic	78	70	90
Other	38	30	79

* Secondary departments are units for secondary students attached to primary schools, and are managed by the principal of the primary school.

Given the information currently available, explanations regarding the reasons for variation in response rates would be merely speculative.

Presentation of the Results

The survey results are provided in tables and figures throughout the following sections of this report. It should be noted that not all principals responded to every item in the survey, and thus the numbers of respondents indicated in different sections of the report sometimes differ. Where percentages are reported, they relate to the number of principals responding to the particular item, and not the number of principals responding to the survey as a whole.

BACKGROUND CHARACTERISTICS

In this section of the report various background characteristics of those principals responding to the survey are described. In addition, information regarding their schools is provided. These data were collected from principals for a number of reasons. First, they are of interest in their own right. Second, they enable a detailed description of the survey sample, and third, they enable other survey data to be analysed in terms of relevant background characteristics.

Age and Sex of Principals

The age distribution of principal respondents is given in Table 2.

Table 2: Age distribution of principal sample

AGE RANGE	PERCENTAGE OF PRINCIPAL SAMPLE				
	Government Secondary Department	Government Secondary School	Catholic	Non-Government Non-Catholic	TOTAL
	(n=44)	(n=86)	(n=68)	(n=30)	(n=228)
	%	%	%	%	%
21-30	2	-	-	-	-
31-40	75	11	32	20	31
41-50	23	67	40	47	48
51-60	-	22	27	27	20
Over 60	-	-	1	7	1

The youngest group of principals came from government secondary departments, with the majority being in the 31 to 40 years age range. In contrast, most government secondary school principals were 41 to 50 years of age. Principals from the non-government systems were more evenly distributed across the central age ranges (31 to 60) though the most frequently reported age was 41 to 50 years.

The majority of the principals (84 per cent) were men. Two out of 130 principals of government secondary schools and departments were women. The proportions of women principals in the other school systems were 38 per cent and 27 per cent for Catholic and non-Catholic respectively.

Major Teaching Areas of Principals

Table 3 provides information concerning principals' major teaching areas in their present or most recent teaching positions.

Table 3: Major teaching areas of principals in the sample

TEACHING AREA	Government Secondary Department (n=42) %	Government Secondary School (n=86) %	Catholic (n=69) %	Non-Government Non-Catholic (n=30) %	TOTAL (n=227) %
English/Humanities/ Social Science	19	51	44	67	45
Maths/Science	21	45	36	27	36
General Primary	57	-	-	-	11
Other*	2	4	20	7	9

* Included religion, commercial, manual arts

As can be seen from the table, principals of government and Catholic schools generally came equally from the humanities and mathematics and science teaching areas. The non-government non-Catholic school principals, however, were more likely to have teaching backgrounds in the humanities.

Years of Experience as a Principal

Survey respondents' years of experience as principals both in total and at their current schools are outlined in Table 4.

Table 4: Principals' years of experience

TYPE OF EXPERIENCE	Government Secondary Department (n=43)	Government Secondary School (n=83)	Catholic (n=68)	Non-Government Non-Catholic (n=30)	TOTAL (n=224)
Total Years as Principal					
Mean	11.5	7.5	7.0	8.6	8.3
Std dev.	4.3	5.0	4.7	6.6	5.3
Range	3-22	0*-21	1-21	1-28	0-28
Total Years as Principal at Current School					
Mean	2.3	4.3	3.8	7.4	4.2
Std dev.	2.0	3.1	2.4	5.6	3.5
Range	0-12	0-15	0-12	1-19	0-19

* Principals with zero years' experience were in their first year as a principal

An examination of Table 4 reveals that, in terms of total years as principals, respondents from government secondary departments had the most experience. In contrast, they had least experience in terms of years as the principal at their current school. Another detail of interest emerging from Table 4 is that principals of non-government non-Catholic schools had, on average, been principals of their current schools for considerably longer than was the case with principals in other school systems.

Locations and Enrolments of Schools

Information was collected from principals on the location and student enrolment of their schools. Tables 5 and 6 summarise the principals' responses.

Table 5: Location of schools

LOCATION	Government Secondary Department (n=44) %	Government Secondary School (n=87) %	Catholic (n=70) %	Non-Government Non-Catholic (n=30) %	TOTAL (n=231) %
Brisbane City	-	25	39	37	26
Outer Brisbane metropolitan	5	20	11	20	14
Other large coastal or near coastal population centre	11	21	33	27	23
Other coastal or near coastal area not listed above	18	14	9	10	13
City/town (population 3,000 or more) west of range	5	14	9	7	10
Other population centre west of range (population fewer than 3,000)	61	7	-	-	14

Respondents' schools were most often situated in the Brisbane city area, or in large coastal centres. Government secondary departments were the major exceptions to this general trend, with over 60 per cent of them situated in small centres west of the range.

An examination of the enrolments data presented in Table 6 reveals that the non-government schools were often smaller than government secondary schools. For example, 33 per cent of Catholic schools had under 300 students compared to 13 per cent of government secondary schools. Moreover, 18 per cent of Catholic schools had more than 600 students compared to 61 per cent of government secondary schools.

Table 6: Enrolment of schools

ENROLMENT	Government Secondary Department (n=43) %	Government Secondary School (n=83) %	Catholic (n=66) %	Non-Government Non-Catholic (n=28) %	TOTAL (n=220) %
300 or fewer students	100	13	33	25	38
301-600 students	-	25	49	39	29
601 or more students	-	61	18	36	33

ADEQUACY OF CURRENT STAFFING IN SUBJECT AREAS

This section of the survey was designed to investigate principals' perceptions of the adequacy of the qualifications of their teachers. Two types of information were sought. First, factual information was requested concerning the number of students enrolled in each subject area at both the junior and senior secondary levels, and the number of classes in each area. Second, for each subject area at both the junior and senior school levels, principals were to give their opinion concerning the number of classes being taught by teachers they considered to be (i) well qualified to teach the subject, (ii) adequately qualified to teach the subject, and (iii) poorly qualified or unqualified to teach the subject.

Principals' comments and responses suggest that some defined "well qualified" as simply being a registered teacher, others defined it as having post-secondary studies in the subject area, while others related it to practical teaching effectiveness. Some principals suggested that their responses would have been quite different if the question had sought information on "teaching competency" rather than "adequacy of qualifications".

A small number of principals provided information on the actual number of teachers considered to be well, adequately, or poorly qualified in each subject area rather than the number of classes taught by these teachers. In cases such as this, the responses were coded such that the number of classes taught by well qualified teachers was maximised and the number taught by poorly qualified teachers was minimised. This was based on the assumption that less well qualified teachers in a subject area would be assigned to fewer classes than those considered to be well qualified. This coding decision facilitates data interpretation, as responses have been consistently coded with a positive bias. Thus, the findings regarding the adequacy of teachers' qualifications can be considered to provide a more positive picture than may actually be the case.

Table 7 presents the data for the major junior level Board of Secondary School Studies subject areas. It should be noted that the percentages presented in the table do not relate to the number of schools offering the particular subject, nor to the number of teachers teaching it, but to the number of classes of students enrolled in the subject. Thus, for example, the table shows that 83 per cent of 2,875 English classes and 91 per cent of 268 Shorthand classes were perceived by principals to be taught by well qualified teachers.

Table 7: Perceived quality of staff in major years 8-10 Board subjects

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	209	2,858	83	14	3
French	147	768	83	13	4
German	77	494	84	15	1
Citizenship Education	156	730	71	25	4
Geography	193	1,470	82	15	3
History	197	1,487	85	13	3
Mathematics*	206	2,960	82	15	2
Science	206	2,737	83	13	4
Business Principles	192	821	88	11	1
Shorthand	137	268	91	8	-
Typing	179	975	89	11	-
Art	188	1,641	86	12	3
Music	123	946	92	6	2
Health and P.E.	134	1,252	84	12	4
Home Economics	167	1,806	92	8	1
Manual Arts**	169	2,077	92	8	1
Graphics	130	946	91	9	1
Technical Drawing	47	280	86	13	1

* Includes core Maths in Years 8 and 9, Advanced, General and Ordinary Maths.

** Includes core Manual Arts in Year 8, Shop A, Shop B, Woodwork and Metalwork.

A large majority of classes in all subject areas was taught by teachers considered to be well qualified. Teachers in the more practically oriented subject areas (e.g. shorthand, home economics, manual arts, agriculture) tended to be rated most positively. The teachers perceived as least qualified were clearly those teaching Citizenship Education.

Appendix 2 (Tables 2.1, 2.2) provides data regarding principals' perceptions of teacher adequacy in the less common Board subjects (e.g. General Science, Study of Society), and in school subject areas. An examination of the tables reveals that the Board subject Study of Society, and the school subject areas of religion, computer studies and social science received the least favourable assessments from principals.

Table 8 provides information relating to the major Years 11 and 12 Board subjects.

Table 8: Perceived quality of staff in major years 11-12 Board subjects

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	149	1,105	90	10	-
French	80	133	96	4	-
German	62	95	87	13	-
Ancient History	105	224	94	5	-
Modern History	143	320	94	6	-
Geography	145	359	92	6	2
Economics	142	420	86	13	1
Maths I	152	608	91	9	1
Maths II	149	334	96	4	-
Social Maths	127	508	82	15	3
Chemistry	151	428	91	8	1
Physics	149	375	91	9	-
Biology	157	736	91	7	2
Multi-Strand Science	42	109	81	19	-
Accounting	143	408	87	11	2
Home Economics	115	327	86	13	1
Geometric Drawing and Perspective	112	251	91	9	-
Art	132	375	91	9	-
Music	62	100	96	3	1
Health and P.E.	91	297	92	7	1
Secretarial Studies	45	72	94	6	-

Those subjects rated most favourably included French, Maths II, Music and Secretarial Studies. Those rated least favourably included Multi-Strand Science, Social Maths, Home Economics and Economics. Tables 2.3 and 2.4 in Appendix 2 provide information regarding principals' perceptions of teacher adequacy in the less common Board subjects and in school subject areas. Principals' opinions were generally quite favourable in most of these areas. Film and Television and school mathematics subjects, however, were assessed as being taught by a considerable proportion of teachers who were less than well qualified.

It is of interest to note that the patterns of teacher adequacy differ from the junior to the senior school. In particular, a higher proportion of teachers at the senior level than at the junior level were rated as being well qualified. This may reflect a tendency for principals to assign more competent teachers to Years 11 and 12 classes.

Principals' perceptions of teacher adequacy differed somewhat according to the type of school they managed. The data relating to this are provided in Tables 2.5 to 2.9 in Appendix 2. In brief, principals of government secondary departments rated the adequacy of their Years 8-10 teaching staff considerably less favourably than principals of other schools. However, principals' perceptions of teacher adequacy were, on average, much the same in government high schools as in non-government schools. The specific subject areas rated most and least favourably differed, however, for the two systems. For example, the government high school principals perceived the practical subject areas (e.g. Shorthand, Manual Arts, Graphics) to be most adequately staffed, while the non-government school principals rated teachers of French, German and Music most favourably. It is interesting to note that principals from all types of schools rated Citizenship Education classes to be taught by the least or second least well qualified group of teachers.

In terms of Years 11 and 12 subject areas (Tables 2.8, 2.9), principals from both government and non-government systems rated French and Maths II classes as having two of the most well qualified groups of teachers, and Social Mathematics classes as having one of the least well qualified groups of teachers.

In addition to providing information on the adequacy of teachers' qualifications, principals were invited to comment on the general staffing situations in their schools. Seventy-nine respondents (34 per cent) made some comment. The major types of statements made are briefly outlined below, in order of frequency of mention.

- Qualifications of staff are satisfactory (22 principals)

  Comments of this type focused on the perceived adequacy of teaching staff both in terms of their qualifications and experience. A number of principals from non-government schools pointed out that they had the freedom to pick and choose staff, and therefore generally acquired well qualified teachers.

- Appropriately qualified staff are difficult to find (17 principals)

  Shortages of teachers in a range of subject areas were described, though mathematics and science were the most frequently mentioned subjects. Other areas mentioned were commercial, manual arts, English, social science, accounting, home economics, religion, languages and fine or performing arts.

- Academically qualified teachers are not necessarily the best teachers (16 principals)

  These principals commented that academic qualifications did not ensure teachers' possession of effective teaching techniques nor the ability to relate to adolescents.

- Staffing levels or entitlements are inadequate (11 principals)

  These comments focused on concern with class sizes, inadequate staff numbers, together with the need for remedial and relief staff.

- Replacing staff can be difficult (6 principals)

  Government school principals referred to delays in getting replacement staff, while non-government school principals in rural areas had difficulties recruiting staff because of their schools' locations.

Other comments made by smaller numbers of principals included: concern at teachers' abilities to cope effectively with the increasing emphases on transition education and school-based curriculum; difficulties experienced in secondary departments due to the relative inexperience of staff; and concern at the rate of staff turnover.

In summary, principals' perceptions of appropriate criteria for judging teachers as well or poorly qualified varied. Moreover, there was some comment that qualifications did not guarantee teaching effectiveness. In most subject areas, principals judged that between 80 to 90 per cent of classes were taught by teachers they considered to be well qualified. Most of the other 10 to 20 per cent of classes, however, were perceived as being taught by adequately qualified teachers.

FUTURE STAFFING REQUIREMENTS

In this section, future staffing requirements of secondary schools are investigated. Principals provided information on two aspects of their schools' likely future needs: new subject areas they would like to see introduced, and priorities for additional staff.

New Subject Areas

Principals indicated the new teaching areas or areas of expertise within existing teaching areas which they would like to see introduced into their schools. They were further asked to estimate the number of students at each Year level who would enrol in the subject if it were offered in Semester 1, 1984, and the number of classes which would be required to meet this student demand. Principals of 138 schools (60 per cent) specified subject areas. Most of these (67 per cent) listed one or two areas.

A number of the principals who did not intend or wish to introduce any new subject areas commented on their reasons. The most frequently mentioned factors were: the time being consumed by current changes in subject accreditation and student assessment procedures under the Review of School-Based Assessment (ROSBA) guidelines; limitations on school resources (finances, staff and facilities); and satisfaction with the school's current subject offerings. Some principals who listed new subject areas also commented that resource limitations would probably prevent implementation in 1984.

Table 9 lists the subject areas most frequently mentioned by principals, and the anticipated student enrolments in Semester 1, 1984.

Table 9: New subject areas and anticipated student enrolments

SUBJECT/PROGRAM	NUMBER OF PRINCIPALS LISTING THE SUBJECT/ PROGRAM (n=138)	ANTICIPATED STUDENT ENROLMENTS IN SEMESTER 1, 1984				NUMBER OF PRINCIPALS NOT SPECIFYING ANTICIPATED ENROLMENTS
		Year 7/8	Year 9/10	Year 11/12	TOTAL	
Health and P.E.	26	740	768	597	2,105	1
Computer Education	22	1,787	2,879	618	5,284	-
Manual Arts	22	251	450	360	1,061	-
Theatre/Speech and Drama	21	303	605	485	1,393	2
Social Science	20	210	327	131	668	1
Commercial	19	97	161	191	449	1
Home Economics/ Catering	19	184	451	258	893	1
Music	17	593	289	92	974	1
Agriculture	14	57	315	28	400	5
Mathematics	13	-	110	250	360	1
Science	12	140	68	267	475	1
Art	10	178	50	110	338	1
Foreign Languages	10	445	109	25	579	-
Transition Education	10	20	251	99	370	1
Media Education/ Film and Television	9	-	-	215	215	1
Graphics/Technical Drawing	7	-	53	34	87	1
Communication English	7	-	203	102	305	1
Careers Education	6	806	1,063	-	1,869	-
Leisure/Craft	5	-	-	115	115	-
Legal Studies	5	-	-	95	95	2

Principals' comments were a valuable source of information regarding the major subject areas listed. Those areas listed by more than ten principals are described in more detail below.

- Health and Physical Education: Principals of non-government schools tended to list this area more frequently than principals of government schools. Principals did not generally differentiate between Health and Physical Education as a Board subject and health and physical education as part of the common core curriculum. Given that most schools already offer health and physical education to all their students, however, it can reasonably be assumed that many of the principals intended to introduce the Board subject.

- Computer Education: The emphasis was on the introduction of computer studies for all students at the junior secondary level. A considerably higher proportion of non-government school principals, as compared to State school principals, reported a desire to introduce this area to their schools.

- Manual Arts: Government school principals listed this area twice as frequently as others. In most cases, they suggested the introduction of school subjects at the senior level.

- Theatre/Speech and Drama: Principals generally wished to introduce the Board subject Theatre at the senior secondary level, and Speech and Drama at both

junior and senior levels. A considerably higher proportion of government secondary school principals listed this area.

- Social Science: The subjects mentioned were for introduction at both junior and senior levels. About half were Board subjects generally in the history area, while the others were school subjects such as People, Society and Environment, and Social and Community Studies.

- Commercial: In the senior school, principals placed emphasis on the introduction of school subjects such as Clerical Studies and Advanced Business Studies. In the junior school, however, Board subjects such as Business Principles and Typing were generally listed.

- Home Economics/Catering: This area was listed most often by government secondary school principals. Subjects for offering at the Years 11 and 12 levels were mentioned twice as frequently as others, and were typically school subjects such as Catering and Hospitality, though the Board subject Home Economics was listed in a few instances.

- Music: Most principals intended to implement music courses at the junior secondary level. Their responses did not provide clear explanation regarding the nature of the intended music programs, though it can be inferred that core music programs were intended for Year 8 students with a greater emphasis on Board Music in later years.

- Agriculture: With the exception of one case, all principals listing subjects in this area were from the state system. Most emphasis was on the introduction of Agriculture or Agricultural Science at the junior secondary level.

- Mathematics: Emphasis here was on introducing to the senior school less academic Board subjects (e.g. Social Maths), or school subjects (e.g. Maths for Living). Subjects at the junior level included General Mathematics and school subjects.

- Science: The most common subject principals intended to introduce was Multi-Strand Science at the Years 11 and 12 levels. Other subjects included junior level Board subjects such as General Science and school subjects such as Science in Mining.

Principals' intentions regarding new subject areas can provide some insight into the future directions in secondary education and hence future staffing requirements. We have clear evidence here of schools' expansion into areas beyond the traditional academic disciplines. There is movement into relatively new disciplines (computer education, careers education), the expressive arts (e.g. theatre, music, art) and practically oriented areas (manual arts, home economics, commercial, agriculture). Moreover, many of the subject areas that have existed in schools for a long time are being reshaped and redefined through school-based curriculum development initiatives, as evidenced by the introduction of school subjects in both traditional academic and practical curriculum areas.

Priorities for Additional Staff

Principals provided further information on their likely future staffing needs by indicating their staffing priorities for 1984. The principals were asked to rank order their priorities, indicating the subject areas in which they needed additional staff, or the types of specialist personnel (e.g. remedial teacher, teacher-librarian) they required. Information regarding the Year levels to which the staff would be attached was also requested, and space was provided for explanatory comments.

Principals' responses to the question are summarised in Table 10. Some comment on the nature of the data presented is necessary. First, the data as presented in Table 10 does not take into account the priority ordering of principals' responses. It was found, after analysis, that using the priority rankings did not in fact alter the total relative ordering of the subject areas or personnel, and they were therefore excluded from further analysis. Second, the year level data presented in Table 10 relate to all schools in the sample, including a considerable number without senior students. For this reason, a second analysis was performed on responses from principals of only those schools

with senior students. In most instances the Year level distribution was no different, but when it was the distribution for schools with senior enrolments is indicated in brackets.

Table 10: Priorities for additional staff

SUBJECT AREA OR SPECIALIST PERSONNEL*	PROPORTION OF SCHOOLS LISTING THE AREA AS A PRIORITY (n=214)	YEAR LEVELS (WHERE APPLICABLE) 7/8	9/10	11/12
Remedial teachers	53	H	H	L
Transition education	26	L	M	H
Curriculum co-ordinator	26	-	-	-
Mathematics teachers	22	H	H	M
Science teachers	19	H	H	M
Guidance counsellors	17	M	H	H
English teachers	16	H	H	M
Teacher-librarians	14	-	-	-
Physical education teachers	13	H	H	L (M)
General teaching staff	11	M	M	M
Music teachers	9			
Manual Arts teachers	8			
Careers education	8			
Commercial teachers	8			
Computer education	7			
Deputy Principal	6			
Art teachers	6			
Resource teachers	6			
Counsellors	6			

* Only those areas and staff mentioned by over 5 per cent of the responding principals are listed. Areas and staff mentioned by less than 5 per cent included: foreign languages, social science, film and television, E.S.L., religion, performing arts, home economics, administrative support personnel, year masters/mistresses, agriculture, human relationships, and drama.

Key: H = mentioned by over 60 per cent of the principals listing the area
M = mentioned by 30 per cent to 60 per cent of the principals listing the area
L = mentioned by less than 30 per cent of the principals listing the area

Each of the major areas or personnel nominated by principals is discussed below.

- Remedial teachers: Over half of these principals reported a need for remedial staff in the English or mathematics areas, and this was most strongly felt at the junior secondary level. Principals sometimes expressed the situation as being "urgent" or "desperate". A few alluded to the problem of Year 8 students entering the school with well established problems that needed considerable remediation effort to overcome. Two principals commented:

  "As in most secondary schools, our school is badly in need of at least one teacher who can individualise study for students in need of remedial help."

  "It seems to be policy that handicapped and children with mild learning difficulties should be encouraged to attend normal State high schools. The reasons for this are quite sound. The disappointing aspect of the

policy is that high schools do not have the specialist teachers required ..."

- Transition Education: Additional staff in the transition education area was a priority for about 25 per cent of the principals. Emphasis was at the senior secondary level. Principals' comments focused on two different aspects of staffing requirements. First, many described their need for additional staff members to enable the introduction or expansion of transition education programs. Others focused their comments on a need for staff especially suited to transition education teaching (e.g. those teachers "with a variety of skills to attempt to meet kids' needs").

- Curriculum Co-ordinators: Principals of government secondary departments expressed a keen desire for the appointment of curriculum co-ordinators. It was felt that such personnel would be of considerable benefit in assisting primary principals with secondary curriculum matters, and providing support to inexperienced teachers often assigned to secondary departments. For example, one principal referred to the great need to "ease the burden on the young inexperienced teachers who make up the greater proportion of the staff". Principals in other types of schools focused on the need for a curriculum co-ordinator to analyse course offerings in order to reduce overlap and promote relevance to student needs.

- Mathematics, Science and English: The major reasons nominated for requiring additional staff in these areas were increasing enrolments, and the need to decrease class sizes to cater more effectively for individual students. Another reason put forward was a desire for greater flexibility in class arrangements. Shortages of personnel in these curriculum areas also contributed:

  " 'Good' maths teachers are not readily available, particularly for Years 11 and 12."

  "Specialists in English are in short supply."

- Guidance Counsellors: It was often commented by principals that they had part-time help in this area but required further support in the offering of career advice to students and the organisation of work experience programs.

- Teacher-Librarians: Principals of government secondary departments generally commented that the services of a teacher-librarian were not available to their schools, although the resultant benefits would be considerable. Principals of other schools typically mentioned a need to expand on library services to staff and students.

- Physical Education Teachers: The general comment made by principals was that additional staff would enable an expansion of physical education programs or course offerings.

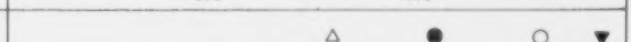
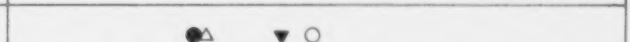
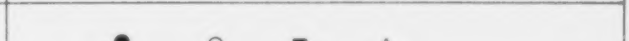
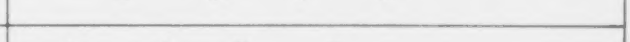
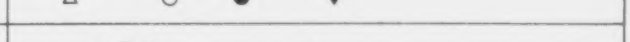
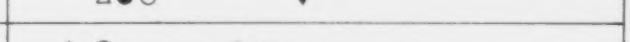
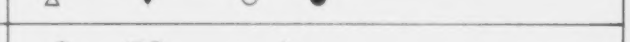
- General Teaching Staff: A desire to reduce class sizes and cater more adequately for increased enrolments motivated many principals to list this as a priority. A few expressed concern that inadequate staff levels were forcing teachers to work in their minor teaching areas.

- Music: One principal described difficulties with finding music teachers. Others referred to such factors as the "cultural need" of students for programs in music.

- Manual Arts: Increased enrolments, large class sizes and expansion of school subject offerings in this area were all nominated as reasons for needing additional manual arts staff. Two principals referred to a "drastic shortage" of manual arts teachers in Queensland and Australia.

The priorities for additional staff nominated by principals differed slightly according to the type of school at which they were based. Figure 1 provides more detailed information for those subject areas listed by over 10 per cent of principals.

Figure 1: Priorities for additional staff by school type

SUBJECT AREA OR SPECIALIST PERSONNEL	PERCENTAGE OF PRINCIPALS LISTING THE AREA AS A PRIORITY 20% 40%
Remedial teachers	
Transition education	
Curriculum co-ordinator	
Maths teachers	
Science teachers	
English teachers	
Guidance counsellors	
Teacher librarians	
Physical education teachers	
General teaching staff	

Key:

Government Schools
- △ Secondary Departments
- ▼ Secondary Schools

Non-Government Schools
- ○ Catholic
- ● Non-Catholic

A number of interesting points emerge from the data presented in the figure:

- government secondary school principals expressed the most need for remedial teachers, while principals of government secondary departments expressed the least need;
- in comparison to other systems, principals of government schools, particularly secondary departments, expressed a stronger need for curriculum co-ordinators;
- secondary department principals placed particular priority on teacher-librarians;
- government secondary school principals listed mathematics and science teachers as priorities more frequently than other principals; and
- non-government school principals listed guidance counsellors as priorities more frequently.

In summary, principals' priorities and future requirements for additional staff appear to relate to a number of demand factors: (i) the need for provision of remedial assistance to some students; (ii) increased enrolments and a perceived need to reduce class sizes; (iii) students' need for careers information and guidance; (iv) the expansion of transition education and school-based curriculum development; and (v) a related emphasis on what could be designated as skill areas - that is, those areas offering students an opportunity to acquire practical work, survival or leisure and artistic skills (e.g. physical education, music, manual arts, commercial, computers, art) as opposed to the more academic areas that have traditionally formed a major part of the secondary school curriculum.

These findings parallel the results of a recent survey of government schools conducted jointly by the secondary inspectorate and the Research Services Branch of the Queensland Department of Education. The *Survey of Curriculum Practices in Queensland State Secondary Schools and Departments* (Cooper, Byrne and Maynard, 1983) found that principals perceived a need to: cater more effectively for students of varying abilities, particularly those in need of remedial assistance; expand offerings in the fine and performing arts and physical education areas; cater more for students with non-academic aspirations and interests; and make the curriculum more relevant to students particularly through the expansion of practical subject areas (e.g. manual arts, commercial). The survey also revealed that recent and proposed curriculum change in schools focused on these areas of need.

FUTURE DEVELOPMENTS IN SECONDARY EDUCATION

This section of the survey was designed to determine principals' views on the desirability of various possible future developments in secondary education in Queensland. Principals were asked to rate 26 items using a five-point scale (highly desirable, desirable, neither desirable nor undesirable, undesirable, highly undesirable). The items were designed to cover three broad areas of developments in secondary schools, viz. curriculum issues, organisational issues and school-community relationships. Some items were drawn from recent reports (e.g. *Schooling for 15 and 16 Year Olds*, Schools Commission, 1980; *Secondary Schooling and the World of Work*, Board of Teacher Education, 1982; *Rationale and Guidelines for Teacher Education Courses in Brisbane College of Advanced Education*, 1983), while others were constructed for the purposes of this survey.

In order to gain an indication of whether the principals' responses could be grouped under the three broad headings previously described, a factor analysis was undertaken (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975). This revealed a very high level of agreement between the a priori grouping of the items and the groupings derived from the factor analysis. The exception was a group of three items which formed a fourth cluster in addition to the ones previously mentioned. The results of the four-factor varimax rotated factor solution are presented in Table 11.

Table 11: Factors derived from "Future Developments in Secondary Education" items

		Loading
Factor 1: Community-School Interaction		
1.	Closer connections between schools and local communities	.60
3.	Increase in number of mature age students in secondary schools	.38
6.	Increased use of schools by the community	.49
9.	Greater use by schools of expertise available in local community	.36
11.	Increased student participation in school and classroom decision-making	.53
14.	Increased involvement by school communities in school curriculum decisions	.48
18.	Increased emphasis on meeting the needs of migrants in schools	.43
25.	Increased teaching of community languages in schools	.55
26.	More emphasis on studies of South-East Asian countries	.50
Factor 2: Non-Academic Emphasis in the Curriculum		
7.	Greater emphasis on the arts	.36
8.	Increased offering of "non-academic" elective subjects	.59
13.	More work experience programs for students*	.48
19.	Increased offering of "transition education" programs	.65
20.	Increased emphasis on teaching of human relationships	.49
4.	Greater emphasis on school-based curriculum development**	.33
5.	Greater integration of teaching across curriculum areas**	.31
21.	Increased emphasis on "pastoral" role of teachers**	.31
24.	Increasing educational use of computers in classrooms**	.23
Factor 3: Organisational Structure		
12.	Development of Year 8 centres or middle schools for junior secondary students	.45
16.	Establishment of community colleges offering a range of courses for senior secondary students and other members of the community	.67
22.	Development of separate senior schools	.70
23.	Flexible hours of attendance for senior students*	.43
17.	Increase in average size of secondary schools**	.28
Factor 4: Academic Rigour		
2.	Greater emphasis on teaching of literacy and numeracy	.37
10.	Return to external Senior examinations	.43
15.	Increased emphasis on teaching of mathematics and science	.45

* Items having salient loading ( ) .35) on more than one factor. Items placed on factor on which they had the highest loading.

** Items not loading highly ( ) .35) on any factor - placed on factor on which they had the highest loading.

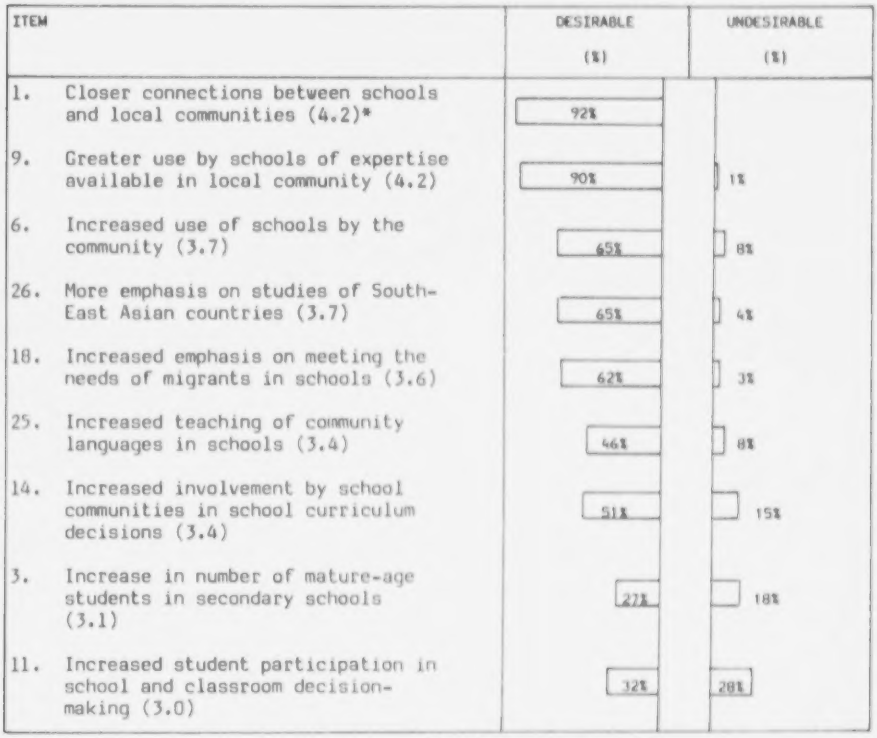
The first factor has been named "Community-School Interaction" as it is comprised of items concerned with school utilisation of community resources and expertise, and greater acknowledgement of the nature of the school community and its potential contribution to curriculum and school processes.

The second factor, "Non-Academic Emphasis in the Curriculum", groups those items that describe the expansion of transition education, and increased emphasis on the non-academic domain (e.g. the arts, human relationships, pastoral care). Item 5 ("greater integration of teaching across curriculum areas") measures the principals' desire for movement away from teaching solely in traditional academic disciplines.

Factor 3 ("Organisational Structure") and its constituent items are concerned with possible changes to the currently adopted structure and organisation of secondary schools. Factor 4 was labelled "Academic Rigour" as its constituent items examine issues concerned with the promotion of traditional academic disciplines, and assessment of standards through an external system.

Figures 2 to 5 provide information on principals' ratings of the future developments in secondary education items. The mean response is presented in brackets beside each item. Also presented is the percentage of principals rating the item as desirable (calculated by combining the "highly desirable" and "desirable" response categories), and the percentage rating it as undesirable (calculated by combining the "highly undesirable" and "undesirable" response categories).

Figure 2: Principals' opinions on Community-School Interaction issues


ITEM
DESIRABLE (%)
UNDESIRABLE (%)
1. Closer connections between schools and local communities (4.2)*
92%
9. Greater use by schools of expertise available in local community (4.2)
90%
1%
6. Increased use of schools by the community (3.7)
65%
8%
26. More emphasis on studies of South-East Asian countries (3.7)
65%
4%
18. Increased emphasis on meeting the needs of migrants in schools (3.6)
62%
3%
25. Increased teaching of community languages in schools (3.4)
46%
8%
14. Increased involvement by school communities in school curriculum decisions (3.4)
51%
15%
3. Increase in number of mature-age students in secondary schools (3.1)
27%
18%
11. Increased student participation in school and classroom decision-making (3.0)
32%
28%

* Mean response

Scale: 5 = Highly desirable
4 = Desirable
3 = Neither desirable nor undesirable
2 = Undesirable
1 = Highly undesirable

Examination of Figure 2 indicates that principals strongly endorsed the notion of closer school-community connections, and school use of local community expertise. Analysis of variance procedures revealed that this view was equally supported by principals from government, Catholic and non-Catholic schools. The reciprocal notion of schools encouraging community use of their resources was not as strongly supported, though the majority was in agreement.

Considerable support was also expressed for those items dealing with emphasis on migrants, other cultures or languages (Items 26, 18, 25). A substantial minority of principals (up to 46 per cent), however, was undecided about these issues. Analysis of variance revealed that a significantly higher proportion of non-government school principals favoured an increased emphasis on the needs of migrants in schools ($p < .01$).

Increased community participation in school curriculum decisions (Item 14) was supported by about half the principals. Increased student participation in decision-making (Item 11), however, drew less support with almost equal numbers of principals agreeing with this item as disagreeing. Analysis of variance revealed that Catholic school principals were more willing than those from other school systems to endorse greater community and student involvement in decision-making ($p < .05$). Moreover, principals from schools with under 300 students were more favourable toward student involvement than those from larger schools ($p < .05$). Item 3 ("Increase in number of mature age students in secondary schools") drew some support, though the majority of principals was undecided.

Figure 3: Principals' opinions on Non-Academic Emphasis issues

ITEM	DESIRABLE (%)	UNDESIRABLE (%)
21. Increased emphasis on "pastoral" role of teachers (4.4)*	87%	1%
24. Increased educational use of computers in classrooms (4.3)	90%	1%
8. Increased offering of "non-academic" elective subjects (4.1)	79%	1%
19. Increased offering of "transition education" programs (4.0)	78%	4%
20. Increased emphasis on teaching of human relationships (4.0)	75%	5%
5. Greater integration of teaching across curriculum areas (4.0)	72%	5%
4. Greater emphasis on school-based curriculum development (3.8)	68%	9%
13. More work experience programs for students (3.7)	68%	8%
7. Greater emphasis on the arts (3.7)	56%	3%

* Mean response

Scale: 5 = Highly desirable
4 = Desirable
3 = Neither desirable nor undesirable
2 = Undesirable
1 = Highly undesirable

Examining Figure 3, it can be seen that principals generally endorsed most items concerned with increasing non-academic emphases. In particular, they strongly supported an increased emphasis on the "pastoral" role of teachers, and an increased use of computers in classrooms. Analysis of variance showed that non-government school principals were more favourably disposed toward increasing teachers' pastoral role ($p < .01$). Similarly, the teaching of human relationships was considered a more desirable development by principals from the non-government systems ($p < .01$). This supports the findings of a recent Australia-wide survey of principals. Batten (1983) found that government and non-government school principals held markedly different views on the importance of pastoral care, moral education, and the development of personal identity.

It is also interesting to note that increased offering of transition education programs was considered to be a more desirable future development by principals from small or middle range schools (i.e. enrolments less than 600).

Figure 4: Principals' opinions on Organisational Structure issues

ITEM	DESIRABLE (%)	UNDESIRABLE (%)
16. Establishment of community colleges offering a range of courses for senior secondary students and other members of the community (3.7)*	63%	11%
12. Development of Year 8 centres or middle schools for junior secondary students (3.5)	51%	16%
22. Development of separate senior schools (3.1)	39%	31%
23. Flexible hours of attendance for senior students (3.0)	30%	34%
17. Increase in average size of secondary schools (1.7)	2%	86%

* Mean response

Scale: 5 = Highly desirable
4 = Desirable
3 = Neither desirable nor undesirable
2 = Undesirable
1 = Highly undesirable

In relation to Figure 4, it can be seen that there was little consensus regarding possible reorganisations of secondary education. For most items, over 25 per cent of principals were undecided about their opinion. There was a majority support, however, for the ideas of establishing community colleges and developing Year 8 centres or middle schools. Increasing the average secondary school size was generally perceived as an undesirable future development.

Analysis of variance revealed the following significant differences in principals' responses:

- principals of larger schools (more than 600 students) were not as strongly supportive of the establishment of community colleges as principals from smaller schools ($p < .05$);
- principals of government secondary departments were the most positive about the development of Year 8 centres or middle schools ($p < .05$);
- the development of separate senior schools and flexible hours of attendance for senior students was most strongly supported by principals of Catholic schools, and least strongly supported by principals of non-government non-Catholic schools ($p < .05$).

Figure 5: Principals' opinions on Academic Rigour issues

ITEM	DESIRABLE (%)	UNDESIRABLE (%)
2. Greater emphasis on teaching of literacy and numeracy (4.2)*	80%	
15. Increased emphasis on teaching of mathematics and science (3.1)	27%	15%
10. Return to external Senior examinations (2.0)	13%	73%

* Mean response

Scale: 5 = Highly desirable
4 = Desirable
3 = Neither desirable nor undesirable
2 = Undesirable
1 = Highly undesirable

An examination of principals' responses to the Academic Rigour items (Figure 5), reveals that 80 per cent of principals supported increased emphasis on the teaching of literacy and numeracy. Principals were quite undecided as a group, however, about their level of support for increasing emphasis on mathematics and science. Non-government school principals, particularly those from the non-Catholic system, were less supportive of increasing the emphasis in these areas ($p < .05$).

The majority of principals considered a return to external senior examinations as undesirable. Government school principals were generally the least supportive of this item while non-government non-Catholic school principals were the most supportive.

Considering all 26 future development items as a group, the following five items emerge as those receiving strongest support:

- increased emphasis on "pastoral" role of teachers;
- increased educational use of computers;
- closer connections between schools and local communities;
- greater use by schools of expertise available in the local community; and
- greater emphasis on the teaching of literacy and numeracy.

Only two items were judged as clearly undesirable:

- increase in average size of secondary schools; and
- return to external senior examinations.

DESIRED CHARACTERISTICS OF SECONDARY TEACHERS IN THE FUTURE

Principals were requested to first consider what would be likely future developments in secondary education, and then rate the importance of various characteristics for secondary teachers entering the profession over the next ten to fifteen years in the light of these developments. A total of 25 items covering a range of professional, personal and teaching characteristics were presented to principals, and they rated their importance on a five-point scale (essential, very important, moderately important, slightly important, not important). Some items were constructed especially for the survey, while others were drawn from recent studies or publications (e.g. *The Induction of Beginning Primary Teachers*, Board of Teacher Education, 1981; *Rationale and Guidelines for Teacher Education Courses in Brisbane College of Advanced Education*, 1983).

A factor analysis was performed on principals' responses to the 25 items. Meaningful factors, however, failed to be extracted, suggesting that the items could not be grouped empirically. Principals' responses to individual items are provided in Table 12. The mean response is indicated in brackets after each item.

Table 12: Principals' responses to desired characteristic items

DESIRED CHARACTERISTIC	Essential	Very important	Mod. important	Slightly important	Not important
	5	4	3	2	1
	%	%	%	%	%
4. Ability to communicate effectively with young people (4.9)	88	12	-	-	-
12. Ability to create an appropriate atmosphere for learning (4.8)	77	22	1	-	-
8. Ability to work in co-operation with other members of staff (4.7)	78	18	4	-	-
1. Willingness to participate in professional development activities (4.6)	62	33	5	-	-
15. Ability to provide pastoral care to students (4.5)	57	36	7	-	-
5. Ability to implement student evaluation procedures (4.4)	49	43	6	1	-
7. Knowledge of adolescent growth and development (4.4)	51	38	11	-	-
9. Willingness to become involved in extra-curricular activities (4.4)	49	44	7	-	-
10. Ability to relate teaching to aspects of everyday life (4.3)	44	46	10	-	-
14. Ability to communicate effectively with parents and the school community (4.3)	41	50	9	-	-

DESIRED CHARACTERISTIC	Essential	Very important	Mod. important	Slightly important	Not important
	5	4	3	2	1
	%	%	%	%	%
17. Ability to develop programs suited to the needs of all students (4.2)	42	43	13	1	1
22. Possession of a broad, general education (4.1)	32	51	16	1	-
23. Appreciation of the impact of technology on their own specific teaching areas (4.1)	25	60	14	1	-
13. Awareness of social and cultural influences on educational practice (4.0)	24	54	21	1	-
19. Ability to relate to people from diverse social, economic and ethnic backgrounds (4.0)	25	53	20	2	-
16. Ability to integrate subject areas of the secondary curriculum and help students see relationships between them (3.9)	22	45	29	4	-
20. Understanding of the effects of rapid technological change on society (3.9)	17	62	19	2	-
21. Understanding of different cultures which make up our society (3.8)	16	48	33	2	-
3. Ability to teach one subject area to Year 12 level (3.8)	33	31	26	5	5
18. Understanding of technology and how it can be used to foster students' learning (3.7)	13	54	29	4	-
24. The ability to develop programs for new subject areas (3.7)	16	43	36	4	1
6. Ability to relate teaching to students' prospective employment (3.7)	17	42	35	5	1
25. Ability to evaluate critically research literature in teaching and learning (3.6)	11	45	36	8	1
2. Ability to teach two subject areas to Year 12 level (3.4)	15	32	39	6	7
11. High academic qualifications (3.2)	5	29	51	12	3

Most principals generally considered it to be at least moderately important that secondary teachers possess each of the 25 characteristics and abilities. Those considered most important related to an ability to communicate effectively with young people and to provide them with an appropriate learning environment. Also of high importance were an ability to work co-operatively with other staff, a willingness to participate in

professional development activities and an ability to provide pastoral care to students. Those characteristics considered least important by principals related to academic factors (qualifications and ability to evaluate research literature), and the ability to teach two subject areas to Year 12, although these items were still seen to be of moderate importance. The relatively lesser importance principals attached to academic qualifications gives further evidence of the view discussed earlier that principals do not always equate effective teaching with high academic qualifications.

For each item, analyses of variance were conducted on the basis of school type, total enrolment and location. Very few significant differences in responses were found, and those that were significant were quite small in real terms. The differences significant at the .05 level were:

- government secondary department principals considered the ability to relate teaching to students' prospective employment as more important than did the other principals;
- government school principals rated the ability to communicate effectively with parents and the school community as less important than did non-government school principals; and
- the ability to provide pastoral care to students was considered more important by principals of non-government schools and by principals of larger schools (more than 300 students).

SUMMARY AND CONCLUSIONS

This study has examined a number of aspects of schools' future requirements for secondary teachers. Its aim was threefold: (i) to investigate principals' perceptions of current teacher supply and quality; (ii) to provide information relevant to the mathematics and science staffing situation in particular; and (iii) to gain a broad overview of future staffing requirements.

In relation to current teacher supply, the survey responses did confirm that shortages were being experienced in some schools. No firm conclusions can be drawn, however, on the extent of the shortages or the total range of subject areas affected. Principals' priorities for additional future staff nonetheless do provide some evidence that schools were most in need of remedial teachers, transition education specialists, curriculum co-ordinators, mathematics, science, English teachers, and guidance counsellors.

In addition, the survey revealed the following points regarding the mathematics and science curriculum areas:

- at the junior level, teachers of Board mathematics and science subjects were among those assessed least favourably by principals in terms of adequacy of qualifications;
- at the senior level, teachers of Board mathematics and science subjects were assessed more favourably. Those teaching school subjects, however, were assessed relatively unfavourably;
- mathematics curriculum offerings were expanding in the area of less academic Board subjects (e.g. Social Maths) and school subjects (e.g. Maths for Living);
- mathematics and science teachers were high on the list of priorities for additional staff, with increasing enrolments and a desire to decrease class sizes being nominated as related factors;
- principals were undecided about the desirability of increasing emphasis on the teaching of mathematics and science; and
- the majority of principals supported a greater emphasis on the teaching of literacy and numeracy.

On the issue of general future requirements in secondary education, the survey has provided a considerable amount of information. Principals are clearly placing importance on teacher characteristics such as the ability to relate to young people and provide pastoral care - characteristics that will be especially important if principals' desires for an increase in teachers' pastoral role eventuate. Moreover, out of a list of 25 teacher characteristics, "high academic qualifications" was rated as least important. In fact, a number of principals expressed the belief that academic qualifications were not highly related to teaching effectiveness and competency.

Another trend consistently emerging from principals' survey responses is the continued expansion of curriculum offerings beyond the purely academic. This includes increased offerings of the less academic Board subjects and school subjects, together with an emphasis on the fine and performing arts and physical education. Curriculum expansion appears to be in those practical areas which provide students with work, leisure, artistic and survival skills. This further promotes the picture of a need for future teachers who possess a range of practical skills and the abilities to communicate effectively with young people and to create an appropriate atmosphere for learning.

Finally, principals strongly support increased school-community relations, and greater use by schools of local community expertise. If such trends do develop, teachers must be capable of effectively communicating with parents and community members, and this was in fact considered to be a very important characteristic for future teachers to possess.

The findings of this survey point to a current and future broadening of schools' and teachers' roles. In recent years, there has been considerable discussion in the research

literature concerning what schools and teachers should aim to achieve at the secondary level, and many recently conducted studies lend support to the findings discussed here.

For example, Campbell and Robinson (1979) conducted a national survey of teachers', students', and parents' attitudes toward education. They found that these groups saw a need for schools to emphasise a caring and humane approach and to stress individual development and social concern. Moreover, Collins and Hughes (1979) in their study of students, parents and teachers in New South Wales found that teaching academic subjects (e.g. foreign languages, history, fine arts) was considered the least important goal of secondary schooling; more emphasis was desired on practical skills, personal autonomy and social awareness.

More recently, a study of students' and school leavers' attitudes toward schooling was conducted in the A.C.T. (Hunt and Fordham, 1983). This survey pointed to important areas of student dissatisfaction with schools: teacher-student relationships and relevance of the curriculum. Teachers were not generally judged to be good or bad on the basis of specific teaching abilities, but on their personal qualities such as warmth, ability to relate to students as young adults, and willingness to take a personal interest in students. In terms of the curriculum, students wanted a more relevant curriculum with greater emphasis on practical learning as well as better opportunities for self-development.

Student and community support for a broadening of the role of the schools, however, has not been accepted by all educationalists. Crittenden (1981), for example, argues that schools cannot succeed in preparing students for all the major roles of adult life. He claims that teachers do not have the skills or experience necessary: "they are hardly equipped to cope with what purports to be the school's formal educational program, much less its manifold tasks of individual and social betterment" (p.163).

Hunt and Fordham (1983) also talk of a dilemma facing high schools: how to design a curriculum which will give students powerful knowledge, yet at the same time engage their immediate interests. They warn of the danger of trivialising the curriculum by immediately responding to students' demands for operational survival and life skills.

In summary, the results of the Survey of Future Requirements for Secondary Teachers suggest that principals are stressing the importance of teachers' personal qualities, are placing less emphasis on academic qualifications, and are currently involved with expanding their schools' curriculums beyond the purely academic. Other research suggests that students and the community would welcome these developments. Some educationalists, however, are questioning the efficacy of such approaches, and the role of schools is likely to be a continuing topic for debate in Australian education.

REFERENCES

Batten, M. *Issues of the Eighties. Principals' Perspectives and School Practices*. Hawthorn: Australian Council for Educational Research, 1983.

Board of Teacher Education, Queensland. *The Induction of Beginning Primary Teachers*. Toowong: Board of Teacher Education, 1981.

Board of Teacher Education, Queensland. *Secondary Schooling and the World of Work*. Toowong: Board of Teacher Education, 1982.

Brisbane College of Advanced Education, Queensland. *Rationale and Guidelines for Teacher Education Courses in Brisbane College of Advanced Education*. Brisbane: Brisbane College of Advanced Education, 1983.

Campbell, W.J. and Robinson, N.M. *What Australian Society Expects of Its Schools, Teachers and Teaching*. Brisbane: University of Queensland, Department of Education, 1979.

Collins, C.W. and Hughes, P.W. Expectations of Secondary Schools: A Study of the Views of Students, Teachers and Parents. In Committee of Inquiry into Education and Training. *Education, Training and Employment*, vol. 2. Canberra: AGPS, 1979.

Cooper, L., Byrne, M. and Maynard, K. *A Survey of Curriculum Practices in Queensland State Secondary Schools and Departments*. Brisbane: Research Services Branch, Department of Education, Queensland, 1983.

Crittenden, B. The Identity Crisis in Secondary Education. *Australian Journal of Education*, vol. 25, no. 2, 1981, pp. 146-165.

Department of Education, Queensland. *Progression and Retention Rates in Queensland Schools 1970 to 1983*. Brisbane: Division of Planning and Special Programs, 1983.

Hunt, J. and Fordham, A. *Year 10 Students' and Recent High School Leavers' Views of ACT High Schooling*. Canberra: ACT Schools Authority, 1983.

Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K. and Bent, D.H. *Statistical Package for the Social Sciences*. Second edition. New York: McGraw-Hill, 1975.

Schools Commission. *Schooling for 15 and 16 Year Olds*. Canberra: Schools Commission, 1980.

APPENDIX 1

QUESTIONNAIRE

CONFIDENTIAL

BOARD OF TEACHER EDUCATION QUEENSLAND

TEACHER EDUCATION REVIEW COMMITTEE

SURVEY OF FUTURE REQUIREMENTS FOR SECONDARY TEACHERS 1983

37

A. PERSONAL INFORMATION

Card 01
Col. 1-5

A1	Age range: (Please circle the appropriate number)	21 - 30	1	
		31 - 40	2	
		41 - 50	3	Col. 6
		51 - 60	4	
		Over 60	5	
A2	Sex:	Male	1	Col. 7
		Female	2	
A3	Years as a principal:	_____ years		Col. 8-9
A4	Years as principal of current school:	_____ years		Col.10-11
A5	Major teaching area in present or most recent teaching position:	English/Humanities/Social Sciences	1	
		Mathematics/Science	2	Col.12
		Other (please specify _____)	3	

B. SCHOOL INFORMATION

B1	Type of school:	Government	1	
		Catholic	2	Col.13
		Non-government, non-Catholic	3	
B2	Location of school:			
	(a)	Brisbane City	1	
		Outer Brisbane metropolitan (Gold Coast, Ipswich, Logan City, Redcliffe, Sunshine Coast)	2	
		Other large coastal or near coastal population centre (Bundaberg, Cairns, Gladstone, Gympie, Mackay, Maryborough, Rockhampton, Toowoomba, Townsville)	3	
		Other coastal or near coastal area not listed above (e.g. Ayr, Dalby, Kingaroy, Mossman, Stanthorpe, Warwick)	4	Col.14
		City/town (population 3,000 or more) west of range (Biloela, Blackwater, Charleville, Charters Towers, Chinchilla, Emerald, Goondiwindi, Longreach, Mount Isa, Roma, Weipa)	5	
		Other population centre west of range (population fewer than 3,000)	6	

B. SCHOOL INFORMATION (contd)

B2 Location of school: (contd)

(b) Which of the following centres is your school closest to?

Brisbane	1	
Longreach	2	
Maryborough	3	
Mount Isa	4	
Rockhampton	5	Col.15
Roma	6	
Toowoomba	7	
Townsville	8	

(c) Approximate distance from centre listed in (b) above

0 - 40 km	1	
41 - 100 km	2	
101 - 250 km	3	Col.16
251 - 500 km	4	
More than 500 km	5	

B3 Enrolment - Census Date:

YEAR	MALE	FEMALE	TOTAL	
7				Col.17-25
8				Col.26-34
9				Col.35-43
10				Col.44-52
11				Col.53-61
12				Col.62-70
TOTAL				Card 02 Col. 6-17

B4 **Staffing:** Please indicate the number of teachers in each category, counting each teacher once only.

TYPE OF TEACHER	MALE	FEMALE	TOTAL	
Principal				Col.18-20
Deputy Principal				Col.21-23
Senior Master/Mistress				Col.24-26
Assistant to the Principal				Col.27-29
Subject Master/Mistress; Subject Co-ordinator				Col.30-35
Co-ordinator of Year Level (or Levels)				Col.36-38
Remedial/Resource Teacher				Col.39-41
Teacher-Librarian				Col.42-44
Advisory Teacher				Col.45-47
Classroom Teacher				Col.48-56
Other teachers (please specify)				Col.57-62
TOTAL				Col.63-68

B5 **Staffing of subject areas:**

We seek two types of information from this question. Firstly, factual information concerning the number of students enrolled in each subject area and the number of classes in each area. Secondly, your opinion concerning the adequacy of the qualifications of teachers for teaching in the subject areas.

The information is sought by asking you to complete the table below. The table is first to be completed with regard to the lower secondary school (Years 7 or 8 to 10). A similar table is then to be completed for the upper secondary school (Years 11 and 12).

In Column A, indicate the number of students taking the subject in Semester 2, 1983.

In Column B, indicate the total number of classes taught in the subject area in Semester 2, 1983.

In Column C, give your opinion concerning the number of classes being taught by teachers who you consider are –

(i) well-qualified to teach the subject at this level (i.e. lower secondary or upper secondary)
(ii) adequately-qualified to teach the subject at this level
(iii) poorly-qualified or unqualified to teach the subject at this level.

PART A (Lower Secondary)
(To be completed for lower secondary (i.e. Years 7 or 8 to 10)

SUBJECT	COLUMN A	COLUMN B	COLUMN C			
			No. of classes taught by teachers who, in your opinion, are:			
	Total students (Years 7 or 8 to 10)	Total No. of classes (Years 7 or 8 to 10)	Well-qualified to teach subject at lower secondary level	Adequately qualified to teach subject at lower secondary level	Poorly qualified or unqualified to teach subject at lower secondary level	
(a) Board subjects						Card 03
01 English						Col. 6-18
02 French						Col.19-31
03 German						Col.32-44
04 Citizenship Ed.						Col.45-57
05 Geography						Col.58-70
06 History						Card 04 Col. 6-18
07 Adv. Maths						Col.19-31
08 Ord. Maths						Col.32-44
09 Gen. Maths						Col.45-57
10 Science						Col.58-70
11 Business Principles and Practices						Card 05 Col. 6-18
12 Shorthand						Col.19-31
13 Typewriting						Col.32-44
14 Art						Col.45-57

(Continued on page 5)
(See pages 6 and 7 for Years 11 and 12)

SUBJECT	COLUMN A	COLUMN B	COLUMN C			
			No. of classes taught by teachers who, in your opinion, are:			
	Total students (Years 7 or 8 to 10)	Total No. of classes (Years 7 or 8 to 10)	Well-qualified to teach subject at lower secondary level	Adequately qualified to teach subject at lower secondary level	Poorly qualified or unqualified to teach subject at lower secondary level	
15 Music						Col.58-70 Card 06 Col. 6-18
16 Health & PE						
17 Home Economics						Col.19-31
18 Manual Arts						Col.32-44
19 Graphics						Col.45-57
20 Technical Drawing						Col.58-70
Other Board subjects (please list)						Card 07 Col. 6-18
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70 Card 08 Col. 6-18
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70 Card 09 Col. 6-18
(b) School subjects						
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70 Card 10 Col. 6-18
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70 Card 11 Col. 6-18

(See pages 6 and 7 for Years 11 and 12)

PART B (Upper Secondary)

(To be completed for upper secondary (i.e. Years 11 and 12))

SUBJECT	COLUMN A Total students (Years 11 & 12)	COLUMN B Total No. of classes (Years 11 & 12)	COLUMN C No. of classes taught by teachers who, in your opinion, are:			
			Well-qualified to teach subject at upper secondary level	Adequately qualified to teach subject at upper secondary level	Poorly qualified or unqualified to teach subject at upper secondary level	
(a) Board subjects						
01 English						Col.19-31
02 French						Col.32-44
03 German						Col.45-57
04 Anc. History						Col.58-70
05 Mod. History						Card 12 Col. 6-18
06 Geography						Col.19-31
07 Economics						Col.32-44
08 Maths I						Col.45-57
09 Maths II						Col.58-70
10 Social Maths						Card 13 Col. 6-18
11 Chemistry						Col.19-31
12 Physics						Col.32-44
13 Biol. Science						Col.45-57
14 Multi-strand Science						Col. 58-70 Card 14
15 Earth Science						Col. 6-18
16 Agriculture & Animal Prod.						Col.19-31
17 Accounting						Col.32-44
18 Home Economics						Col.45-57
19 Geom. Drawing & Perspective						Col.58-70
20 Art						Card 15 Col. 6-18
21 Music						Col.19-31
22 Health & PE						Col.32-44
Other Board subjects (please list)						Col.45-57
						Col.58-70
						Card 16 Col. 6-18
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70
						Card 17 Col. 6-18

(Please list school subjects on page 7)

SUBJECT	COLUMN A Total students (Years 11 & 12)	COLUMN B Total No. of classes (Years 11 & 12)	COLUMN C No. of classes taught by teachers who, in your opinion, are:			
			Well-qualified to teach subject at upper secondary level	Adequately qualified to teach subject at upper secondary level	Poorly qualified or unqualified to teach subject at upper secondary level	
(b) School subjects (please list)						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70
						Card 18
						Col. 6-18
						Col.19-31
						Col.32-44
						Col.45-57
						Col.58-70
						Card 19
						Col. 6-18

Please make any further comment you wish to on the staffing situation in your school.

B6 New subject areas

Please list below new teaching areas or areas of expertise within existing teaching areas which you would like to see introduced into the school, the number of students which you estimate would enrol in the subject at each year level, Semester 1, 1984, and the number of classes in each subject area which would be required to meet student demand.

Subject Area (please list)	Estimated total number of students who would enrol in Semester 1, 1984, if sufficient staff			Number of classes required to meet student demand in subject			
	Year 7/8	Year 9/10	Year 11/12	Year 7/8	Year 9/10	Year 11/12	
							Card 20 Col. 6-22
							Col.23-39
							Col.40-56
							Col.57-73
							Card 21 Col. 6-22
							Col.23-39
							Col.40-56
							Col.57-73
							Card 22 Col. 6-22
							Col.23-39

Please add any comments you wish on the information supplied above.

B7 **Priorities for additional staff**

If it were possible for you to increase your staff by 10 per cent above second semester, 1983, levels to meet what you see to be the likely future needs of students at your school, what would your priorities be?

Please indicate in Column A either the subject area(s) (e.g. English, science, biology, transition education) or types of specialist personnel (e.g. careers adviser, migrant education teacher, remedial teacher, teacher-librarian, subject master, curriculum co-ordinator, deputy principal).

In Column B, indicate a year level or range of year levels (e.g. 9-10) which would be predominantly taught if applicable.

In Column C, please make any additional comments needed to clarify the role you envisage for the teacher concerned.

Priority	COLUMN A Subject area(s) or or specialist personnel	COLUMN B Year level(s) (if applicable)	COLUMN C Comments	
1.				Col.40-43
2.				Col.44-47
3.				Col.48-51
4.				Col.52-55
5.				Col.56-59
6.				Col.60-63
7.				Col.64-67
8.				Col.68-71
9.				Col.72-75
10.				Col.76-79

Comments

C. FUTURE DEVELOPMENTS IN SECONDARY EDUCATION

C1 **Please indicate below, by circling the appropriate number, your view of the desirability of the following developments in secondary education in Queensland, using the scale: 5 = highly desirable, 4 = desirable, 3 = neither desirable nor undesirable, 2 = undesirable, and 1 = highly undesirable.**

	Highly desirable	Desirable	Neither desirable nor undesirable	Undesirable	Highly undesirable	
1. Closer connections between schools and local communities	5	4	3	2	1	Card 23 Col. 6
2. Greater emphasis on teaching of literacy and numeracy	5	4	3	2	1	Col. 7
3. Increase in number of mature age students in secondary schools	5	4	3	2	1	Col. 8
4. Greater emphasis on school-based curriculum development	5	4	3	2	1	Col. 9
5. Greater integration of teaching across curriculum areas	5	4	3	2	1	Col.10
6. Increased use of schools by the community	5	4	3	2	1	Col.11
7. Greater emphasis on the arts	5	4	3	2	1	Col.12
8. Increased offering of "non-academic" elective subjects	5	4	3	2	1	Col.13
9. Greater use by schools of expertise available in local community	5	4	3	2	1	Col.14
10. Return to external Senior examinations	5	4	3	2	1	Col.15
11. Increased student participation in school and classroom decision-making	5	4	3	2	1	Col.16
12. Development of Year 8 centres or middle schools for junior secondary students	5	4	3	2	1	Col.17
13. More work experience programs for students	5	4	3	2	1	Col.18
14. Increased involvement by school communities in school curriculum decisions	5	4	3	2	1	Col.19
15. Increased emphasis on teaching of mathematics and science	5	4	3	2	1	Col.20
16. Establishment of community colleges offering a range of courses for senior secondary students and other members of the community	5	4	3	2	1	Col.21
17. Increase in average size of secondary schools	5	4	3	2	1	Col.22
18. Increased emphasis on meeting the needs of migrants in schools	5	4	3	2	1	Col.23
19. Increased offering of "transition education" programs	5	4	3	2	1	Col.24
20. Increased emphasis on teaching of human relationships	5	4	3	2	1	Col.25
21. Increased emphasis on "pastoral" role of teachers	5	4	3	2	1	Col.26

(Continued over page)

	Highly desirable	Desirable	Neither desirable nor undesirable	Undesirable	Highly undesirable	
22. Development of separate senior schools	5	4	3	2	1	Col.27
23. Flexible hours of attendance for senior students	5	4	3	2	1	Col.28
24. Increasing educational use of computers in classrooms	5	4	3	2	1	Col.29
25. Increased teaching of community languages in schools	5	4	3	2	1	Col.30
26. More emphasis on studies of South-East Asian countries	5	4	3	2	1	Col.31

If there are any further educational developments relevant to secondary education which you consider are highly desirable, please list them below.

C2 **Desired Characteristics of Secondary Teachers in the Future**

Considering the likely developments in secondary education, how would you rate the importance of each of the following characteristics for secondary teachers entering the profession over the next ten to fifteen years?

	Essential	Very Important	Moderately Important	Slightly Important	Not Important	
1. Willingness to participate in professional development activities	5	4	3	2	1	Col.32
2. Ability to teach two subject areas to Year 12 level	5	4	3	2	1	Col.33
3. Ability to teach one subject area to Year 12 level	5	4	3	2	1	Col.34
4. Ability to communicate effectively with young people	5	4	3	2	1	Col.35
5. Ability to implement student evaluation procedures	5	4	3	2	1	Col.36
6. Ability to relate teaching to students' prospective employment	5	4	3	2	1	Col.37
7. Knowledge of adolescent growth and development	5	4	3	2	1	Col.38
8. Ability to work in co-operation with other members of staff	5	4	3	2	1	Col.39
9. Willingness to become involved in extra-curricular activities	5	4	3	2	1	Col.40
10. Ability to relate teaching to aspects of everyday life	5	4	3	2	1	Col.41
11. High academic qualifications	5	4	3	2	1	Col.42
12. Ability to create an appropriate atmosphere for learning	5	4	3	2	1	Col.43
13. Awareness of social and cultural influences on educational practice	5	4	3	2	1	Col.44
14. Ability to communicate effectively with parents and the school community	5	4	3	2	1	Col.45
15. Ability to provide pastoral care to students	5	4	3	2	1	Col.46
16. Ability to integrate subject areas of the secondary curriculum and help students see relationships between them	5	4	3	2	1	Col.47
17. Ability to develop programs suited to the needs of all students	5	4	3	2	1	Col.48
18. Understanding of technology and how it can be used to foster students' learning	5	4	3	2	1	Col.49
19. Ability to relate to people from diverse social, economic and ethnic backgrounds	5	4	3	2	1	Col.50
20. Understanding of the effects of rapid technological change on society	5	4	3	2	1	Col.51
21. Understanding of different cultures which make up our society	5	4	3	2	1	Col.52

(Continued over page)

	Essential	Very Important	Moderately Important	Slightly Important	Not Important	
22. Possession of a broad, general education	5	4	3	2	1	Col.53
23. Appreciation of the impact of technology on their own specific teaching areas	5	4	3	2	1	Col.54
24. The ability to develop programs for new subject areas	5	4	3	2	1	Col.55
25. Ability to evaluate critically research literature in teaching and learning	5	4	3	2	1	Col.56

THANK YOU FOR YOUR CO-OPERATION

ON COMPLETING QUESTIONNAIRE, PLEASE RETURN IT TO THE BOARD OF TEACHER EDUCATION IN THE REPLY-PAID ENVELOP PROVIDED

APPENDIX 2

ADDITIONAL TABLES

Table 2.1: Perceived quality of staff in minor years 8-10 Board subject areas

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	NUMBER OF CLASSES TAUGHT* BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
General Science	20	49	46	2	1
Social Studies	17	39	32	6	1
Study of Society	17	163	122	34	7
Speech and Drama	24	135	122	13	-
Japanese	24	118	102	14	2
Agricultural Mechanics	12	26	23	1	2
Animal Husbandry	19	42	36	6	-
English Expression	10	26	22	4	-
Commercial Studies	26	51	48	3	-
Italian	15	82	77	4	1
Agriculture/Ag. Science	23	106	96	7	3

Table 2.2: Perceived quality of staff in years 8-10 school subject areas

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	NUMBER OF CLASSES TAUGHT* BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
Religion	40	428	281	125	22
Physical Education	43	598	510	44	44
English	13	29	23	6	-
Manual Arts	10	61	59	2	-
Computer Studies	24	149	91	42	16
Home Economics	11	72	66	6	-
Art/Craft	11	40	30	4	6
Social Science	20	99	74	22	3
Fine Arts	14	90	80	9	1
Commercial/Business	13	27	23	3	1

* Numbers of classes (and not percentages) have been reported as only small numbers of schools and classes are involved.

Table 2.3: Perceived quality of staff in minor years 11-12 Board subject areas

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	NUMBER OF CLASSES TAUGHT* BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
Earth Science	21	49	41	8	-
Agriculture	16	29	23	6	-
Film and Television	12	26	15	9	2
Home Management	7	19	18	1	-
Speech and Drama	17	55	49	5	1
Theatre	17	44	38	6	-

Table 2.4: Perceived quality of staff in years 11-12 school subject areas

SUBJECT AREA	NUMBER OF SCHOOLS	NUMBER OF CLASSES	NUMBER OF CLASSES TAUGHT* BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
Commercial/Business	101	176	163	13	-
Manual Arts	80	196	183	12	1
Home Economics/ Catering	30	47	46	1	-
English/Communication	27	36	28	8	-
Art/Craft	19	27	20	7	-
Physical Education	27	90	74	11	5
Social Science	15	21	17	3	1
Science	17	22	21	1	-
Maths	22	33	21	10	2
Religion	27	144	115	28	1
Computer Studies	4	6	5	-	1
Music	7	13	13	-	-

* Numbers of classes (and not percentages) have been reported as only small numbers of schools and classes are involved.

Table 2.5: Perceived quality of staff in major years 8-10 Board subjects*

SUBJECT AREA	GOVERNMENT SECONDARY DEPARTMENTS				
	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	43	213	64	29	8
French	29	48			
German	5	13			
Citizenship Education	38	93	55	41	4
Geography	37	100	73	22	5
History	37	96	66	31	3
Mathematics*	42	231	64	29	7
Science	43	181	72	22	6
Business Principles	42	86	80	19	1
Shorthand	28	42			
Typing	42	112	79	21	-
Art	30	55	35	25	40
Music	11	15			
Health and P.E.	23	89			
Home Economics	41	144	76	24	-
Manual Arts**	40	156	77	22	1
Graphics	31	86	67	29	3
Technical Drawing	10	24			
Agriculture/Ag. Science	3	16			

* Includes core mathematics in Years 8 and 9, Advanced, General and Ordinary Mathematics.

** Includes core Manual Arts in Year 8, Shop A, Shop B, Woodwork and Metalwork.

\+ Shaded areas indicate that the subject was only offered by a small number of schools (less than 30) and percentages were not calculated.

Table 2.6: Perceived quality of staff in major years 8-10 Board subjects+

SUBJECT AREA	GOVERNMENT HIGH SCHOOLS				
	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	77	1688	82	15	4
French	58	434	79	18	4
German	40	304	80	19	2
Citizenship Education	68	430	69	25	6
Geography	77	848	82	15	3
History	77	830	84	14	2
Mathematics*	78	1712	83	15	3
Science	78	1608	83	13	4
Business Principles	77	437	93	7	-
Shorthand	70	149	95	5	-
Typing	77	591	94	6	-
Art	77	1048	88	10	2
Music	59	631	92	6	2
Health and P.E.	69	888	91	7	2
Home Economics	77	1254	94	5	1
Manual Arts**	70	1274	95	5	-
Graphics	72	729	95	4	1
Technical Drawing	8	87			
Agriculture/Ag.Science	16	81			

* Includes core mathematics in Years 8 and 9, Advanced, General and Ordinary Mathematics.

** Includes core Manual Arts in Year 8, Shop A, Shop B, Woodwork and Metalwork.

\+ Shaded areas indicate that the subject was only offered by a small number of schools (less than 30), and percentages were not calculated.

Table 2.7: Perceived quality of staff in major years 8-10 Board subjects*

SUBJECT AREA	NON-GOVERNMENT SCHOOLS				
	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	89	957	88	11	1
French	60	286	94	6	-
German	33	177	94	5	1
Citizenship Education	50	207	80	18	1
Geography	79	522	85	13	2
History	83	561	89	8	3
Mathematics*	86	1017	84	13	3
Science	85	948	84	12	4
Business Principles	73	298	84	14	1
Shorthand	39	77	90	9	1
Typing	60	272	83	17	-
Art	81	538	86	14	1
Music	53	300	93	6	1
Health and P.E.	42	275	78	22	-
Home Economics	49	408	88	12	-
Manual Arts**	33	240	89	10	-
Graphics	27	131	81	19	-
Technical Drawing	29	169	82	18	-
Agriculture/Ag.Science	4	9			

* Includes core mathematics in Years 8 and 9, Advanced, General and Ordinary Mathematics.

** Includes core Manual Arts in Year 8, Shop A, Shop B, Woodwork and Metalwork.

* Shaded areas indicate that the subject was only offered by a small number of schools (less than 30), and percentages were not calculated.

Table 2.8: Perceived quality of staff in major years 11-12 Board subjects*

SUBJECT AREA	GOVERNMENT HIGH SCHOOLS				
	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	73	600	87	13	-
French	39	60	97	3	-
German	33	46	85	15	-
Ancient History	56	112	90	9	1
Modern History	71	153	93	7	-
Geography	76	178	90	10	-
Economics	71	195	85	13	2
Maths I	76	306	89	10	1
Maths II	76	172	95	5	-
Social Maths	63	317	83	13	4
Chemistry	76	211	89	10	1
Physics	75	186	90	10	-
Biology	76	398	90	6	4
Multi-Strand Science	28	82			
Accounting	76	223	89	9	2
Home Economics	72	215	90	9	1
Geometric Drawing and Perspective	72	166	91	8	1
Art	71	235	93	7	-
Music	36	53	98	-	2
Health and P.E.	62	221	92	8	-
Secretarial Studies	27	42			

* Shaded areas indicate that the subject was only offered by a small number of schools (less than 30), and percentages were not calculated.

Table 2.9: Perceived quality of staff in major years 11-12 Board subjects+

SUBJECT AREA	NON-GOVERNMENT SCHOOLS				
	NUMBER OF SCHOOLS	NUMBER OF CLASSES	PERCENTAGE OF CLASSES TAUGHT BY TEACHERS CONSIDERED TO BE:		
			Well qualified	Adequately qualified	Poorly qualified
English	71	489	94	6	-
French	41	73	96	4	-
German	29	49			
Ancient History	48	110	98	2	-
Modern History	67	161	96	4	-
Geography	64	175	95	3	2
Economics	67	220	88	12	-
Maths I	71	274	93	7	-
Maths II	69	156	98	2	-
Social Maths	61	187	82	17	1
Chemistry	71	195	93	7	-
Physics	70	183	93	7	-
Biology	69	326	91	8	1
Multi-Strand Science	13	26			
Accounting	64	180	83	13	4
Home Economics	39	106	79	21	-
Geometric Drawing and Perspective	37	81	91	9	-
Art	60	138	88	12	-
Music	26	37			
Health and P.E.	28	74			
Secretarial Studies	17	30			

+ Shaded areas indicate that the subject was only offered by a small number of schools (less than 30), and percentages were not calculated.